QNAP®

TurboServer TS-401T

High Speed, Reliable, Multi-functional Network Attached Storage for Small and Medium Business

Dedicated to SMB enterprise, QNAP TS-401T is easy and friendly to use with elegant design and embedded with multiple powerful management functions. Installation or management of the system can be simply configured via the multi-language web interface in IE browser even for non IT professionals! With 4 hot swappable SATA disks,

instant/scheduled remote replication, USB CD/DVD burning backup and other value-added features, TS-401T satisfies the need of SMB users for easy-to-use and highly reliable storage device, and acquires variety data protection

Feature Highlights

- Dedicated to SMB enterprise, provides the most efficient storage solution embedded with practical and advanced storage management functions
- Simple installation, 5-min configuration and user-friendly web management interface. All system configuration can be done via IE browser
- New generation high speed SATA HDD, supports hotswap, maximum capacity up to 2 TB
- Dual Gigabit ports for load balance, fail over and standalone settings
- Double USB 2.0 ports for network printer sharing & UPS
- Handy LCD panel for instant display of IP address and important system info; IP settings can be configured directly without access to PC
- Support Raid 0/1/5, and JBOD disk configuration.

- Built-in anti-virus mechanism. Simply enter activation code to enable anti-virus function without extra installation. Supports instant online virus scan to protect data. (Optional)
- Supports hot redundant power supply to increase system reliability (Optional)
- Provides various practical backup mechanisms
  - Remote Replication: Built-in professional block level replication function for users to back up data in TS-401T instantly or by scheduled backup to a remote NAS
  - CD/DVD Backup: USB 2.0 interface for external CD/DVD data burning/restoring
  - NetBak Replicator: Powerful backup software for Windows users, instant/scheduled backup of PC data to TS-401T can be performed without IT professionals

Serial ATA | x2 USB2.0 | x2 Gigabit Ethernet | x4 Hot swappable

http://www.qnap.com.tw

What does SMB need for storage?

High Capacity — The number of employees are increasing, I need more storage capacity that ordinary file server with PC architecture cannot offer.

Centralization — Valuable information is distributed all over the company, I need to centralize and share them.

Data Protection — Information is very important asset to company; I need to protect it from being lost.

Cost Effectiveness — Most storage products are so expensive and complicated. I need an affordable and easily managed storage solution.

Stability & Reliability — The OS of PC file server is enormous in size and highly complicated while the stability is low without guaranteed efficiency as the applications are interactively affected. Therefore, a more stable and reliable storage server is needed.

TS-401T Secure Storage Device Your best storage partner Secure Storage Device

Data protection is the major mission of TS-401T. Backed up by solid technology, storage and replication of users' data can be reassured and protected against damage or loss.

RAID 0/1/5 — Disk Configuration Protection
Support RAID 0/1/5, and JBOD disk configuration. Alert mechanism can be set for disk damage via email alert or by suspending file access services to ensure data security.

Redundant Power — Hot swap/ redundant power supply
One standard hot swap power supply, and an optional second power supply (need extra purchase) to enhance system liability. Support SNMP and USB UPS.

R.R. — Remote Replication Data Protection
Block level high-speed transfer technology, can set scheduled and incremental replication. Enable automatic data backup to another NAS on the network in a flash, which enhances reliability of data backup.

Dual — Dual Gigabit Bandwidth Network
Support two built-in Gigabit network ports which support load balance, fail over, and standalone settings to ensure uninterrupted network transfer.

Virus–Free — Embedded Anti-virus Software
Secure data protection by embedded Trend Micro anti-virus agent, which can be activated by simply entering registration code. Data security is guaranteed.

SATA — Hot-swappable SATA HDD
Support up to 4 hot swappable disks and new generation SATA interface for more convenient connection and speedy data transfer.

TS-401T vs. Traditional Storage Solutions

TS-401T provides more reliable and professional storage functions than general PC server. It is relatively easier to install and operate, and more cost-effective, compared to general PC servers. TS-401T is undeniably the best storage solution for small and medium business.

A. Comparison between TS-401T and PC file server

	TS-401T	PC file server
Reliability	Embedded Linux, high system reliability	Large-scale and complicated OS, lower stability
Performance	Designated for storage, optimized efficiency	Interdependent with different applications, no guaranteed performance
Data Security	Embedded virus scan, RAID1, 5 data protection	Not provided or need to pay extra fee
Network Security	Supports HTTP/FTP by default, more secure	Needs manual configuration, less secure
Fault Tolerance	Network fail-over, load balance, redundant power supply (option)	Yes
Functionality	Multiple practical functions specifically designed for storage server, higher usability	Provides system default functions only, lower usability
Capacity	Up to 2 TB	Limited storage expansion

B. Comparison between TS-401T and High-end storage solution

	TS-401T	High-end storage solution
Cost	Affordable	Expensive
Installation	Built-in quick configuration, can finish installation and configuration easily without MIS support	Highly complicated, needs MIS support or even profession technician from original factory for configuration
Management	Provides Multiple languages web management interface which is legible and easy to maintain	Multiple languages are not completely supported. May need MIS support and large amount of maintenance fee
Data Security	RAID standard disk protection for hard disks; embedded anti-virus mechanism for enhanced protection is available for purchase	RAID standard disk protection for disks; no dedicated anti-virus mechanism or need extra purchase
Fault tolerance	Network fail-over, load balance, redundant power supply (option)	Yes
Functionality	Practical and versatile functions	Complicated functions, more advanced features are futile

TS-401T Value-added Benefits

■ Simple and easy to use management functions

■ Intellectual web management interface
Administrator can connect to the network anytime anywhere to configure disk volume configuration, update system firmware, back up data or perform other functions quickly via web management interface by IE browser.

■ Practical user management functions
Administrator can configure access right and storage quota for each user to manage storage space efficiently. User settings can be backed up which enables quick restoration of user accounts, password and other settings in a short time in case of system damage or another new storage server is installed.

■ Support Microsoft AD (Active Directory)
TS-401T can integrate with the original AD server in enterprise network to minimize the effort and time for regenerating user accounts and makes management more convenient.

■ Outstandingly convenient LCD display panel
Users can view the IP address and system status directly from the LCD panel without connecting to the PC, and can use the buttons on the panel to perform simple configuration.
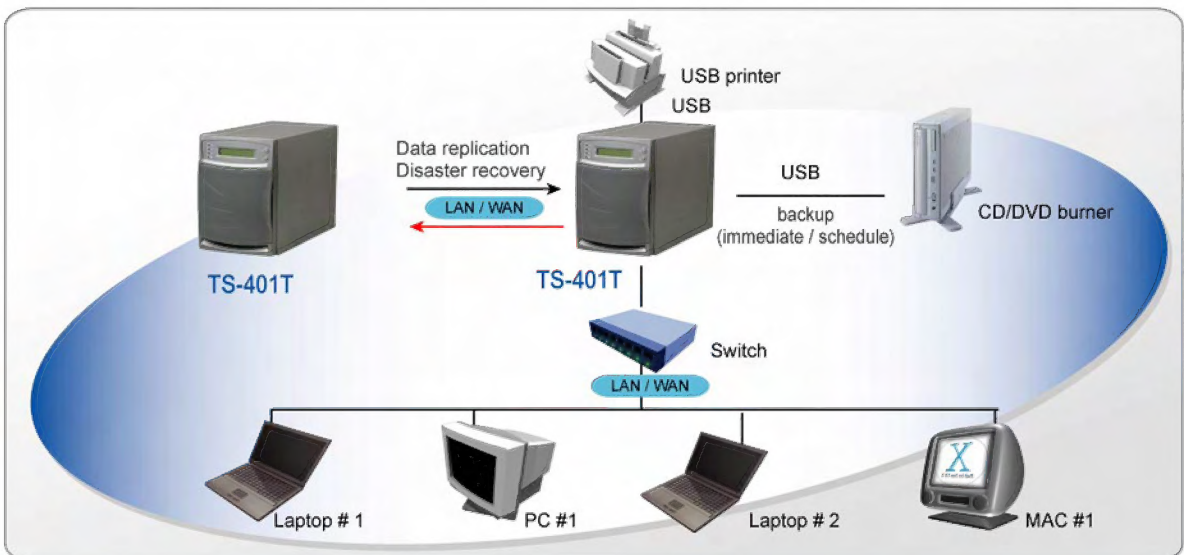
■ Effective data protection

■ Automatic data restoration design
When RAID 1 or RAID 5 disk volume configuration is enabled in TS-401T, users can replace a failed disk with a new one without turning off the system if disk malfunction occurs. QNAP NASWare can restore data to the new disk automatically and current system process will not be interrupted.

■ Embedded online anti-virus mechanism
Built-in Trend Micro anti-virus mechanism, can be enabled instantly by entering activation code. Instant online virus scan to protect data against virus and enables secure data sharing.

■ Diversified backup mechanism

■ Remote replication
TS-401T is embedded with professional standard remote replication function to support instant or scheduled back up of data to another storage server (NAS) on the network. With block level transfer and incremental backup settings, the efficiency of data transfer and backup can be largely enhanced.

■ Client-side data backup
PC users can use the attached backup software NetBak Replicator to backup important data on PC to TS-401T instantly or by schedule without the help of IT professionals.

■ CD/DVD Backup/ Restore
TS-401T supports external USB 2.0 CD/ DVD to provide data backup and restore functions, which brings more convenience to administrator for data backup.

■ Dedicated and complete technical support

■ Online Technical Support
QNAP Online Technical support by MSN and Skype is available. Visit us at http://www.qnap.com.tw for detailed information.

■ Free firmware update for life
QNAP provides free firmware update for life. Users can download the latest firmware from our website anytime. No extra system copyright will be charged.

Specifications

Hardware Specifications

System Specification	CPU	VIA C3 800MHz
	SDRAM	256 MB
	FLASH	32 MB
	HDD	4 x 3.5" SATA HDD, Hot swappable, up to 2 TB
Network Specification	LAN	2 x Gigabit RJ-45 Ethernet port
IO Interface	USB	2 x USB 2.0 (480 Mbps)
System Information	LED Indicator	Power, Error, Network Status, Hard Disk
	LCD Panel	Display: Server Name, Network Status, System Error Message Configure: Network, System Shut Down, System Reboot
	Alarm Buzzer	System Malfunction Warning
Physical Specification	Form Factor	Desktop
	Dimension	380mm(D) x 168mm(W) x 240mm(H)
	Weight	Net Weight: 8kg ; Gross Weight: 12kg
Operation Environment	Temperature	0~40°C
	Humidity	0~80% R.H
Power Management	Power Supply	150W ATX Power Supply x 1 (Optional Redundant ATX Power Supply)

Software Specifications

Operation System	Embedded Linux	Disk Configuration	RAID 0 (Disk Stripping)	System Setup and Configuration	Web-based GUI for System Administration
Network Transport Protocols	TCP/IP		RAID 1 (Disk Mirroring)		Quick Install Wizard
	NetBEUI		RAID 5 (Disk Stripping with parity)		Save and Restore Configuration
	Apple Talk		JBOD (Liner Disk Volume)		LCD Panel Configuration
			Single Disk		Reset Button
Network File Protocols	Microsoft Networks (CIFS/SMB)	Disk Management	Hard Disk Failure Detection (S.M.A.R.T)	Multi Language Support	English, Traditional Chinese, Simplified Chinese, Japanese, French, German
	Apple (AFP)		Disk Detect/Auto Recovery		
	Linux (NFS)		Disk Used Status Management		
	Internet (HTTP)	File System Management	Journaling File System	UPS Support	USB
	File Transfer Protocol (FTP)		Web File Manager for Remote Access		SNMP
Network Security	Microsoft Networks Domain Controller (PDC)		Over 2GB Files Support	Printer Service	USB Printer sharing (for windows)
	Microsoft AD Authentication		Unicode Support	Backup Management	Support Client Backup Software NetBak Replicator
			Share folder level Microsoft ACL Support		
Network Client Type	Microsoft Windows 98/ME/NT/2000/XP/2003		User Quota Setting		Schedule to Remote Replication Backup
		System Management	Web-based Administration		
	Macintosh system 7.5 or above		SNMP Support		Block Level Remote Replication
	Linux Fedora RC3, Redhat 7.3/8.0/9.0		System Temperature Monitor		CD/DVD Burning & Restore (Support CD-R/RW, DVD+R/R/+RW/-RW/-R Double Layer)
			E-mail Alert		
			LCD Panel Configuration		
Network Configuration	Fixed IP Address		LED Display		
	Dynamic IP Address		Alarm Buzzer	Event Log	Display All Current Login Users
	DHCP service		System Software Upgrade		Display System Log/Alert/Error
	Load Balancing		Support Network Time Protocol		Display all DHCP Assignment Information
	Fail-over		Multi Users Account Setting		
	Multi-IP setting		Embedded Trend Micro Virus Scanning Support (optional)		

*Designs and specifications are subject to change without notice.

Award

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NAS-2000
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NAS-5100
2004 Golden
Torch Award